

What is claimed is

1        1. A compact self-ballasted fluorescent lamp,  
2 comprising:

3            an arc tube including a glass tube at least partially  
4        bent, and electrodes sealed at both ends of the glass tube,  
5        each electrode including a filament coil; and

6            a holder having a pair of insertion openings formed  
7        therein, and holding the arc tube by fixing the ends of the  
8        glass tube inserted through the insertion openings,

9            wherein the ends of the glass tube are inserted to such  
10        positions that enable each filament coil to be positioned  
11        within the holder, and a minimum distance  $L_1$ , in an insertion  
12        direction of the ends of the glass tube, between each filament  
13        coil and an edge of corresponding one of the insertion openings  
14        is in a range of 0 to 10 mm inclusive.

1        2. The compact self-ballasted fluorescent lamp of Claim  
2        1, wherein

3            mercury is singly enclosed in the glass tube, and  
4            an inner diameter of the glass tube is in a range of  
5        5 to 9 mm inclusive.

1        3. The compact self-ballasted fluorescent lamp of Claim  
2        1, further comprising

3           a globe covering the arc tube,  
4           wherein the arc tube is thermally connected to the globe  
5           via a heat conductive medium, at a coolest position of the  
6           arc tube during lighting, or a position in a vicinity of the  
7           coolest position.

1           4. The compact self-ballasted fluorescent lamp of Claim  
2        1, wherein

3           the arc tube has a double-spiral construction in which  
4        the glass tube is wound from a middle to both ends thereof  
5        around one axis.

1           5. The compact self-ballasted fluorescent lamp of Claim  
2        1, wherein

3           an amount of 2 to 5 mg inclusive of mercury is enclosed  
4        in the glass tube.

1           6. The compact self-ballasted fluorescent lamp of Claim  
2        4, wherein

3           a pitch of (a) each of both end parts of the glass tube  
4        and (b) an adjacent spiral part in a direction of the axis  
5        is larger than a pitch of other adjacent spiral parts, to  
6        widen a gap between each end part and the adjacent spiral  
7        part.

1           7 . The compact self-ballasted fluorescent lamp of Claim  
2       5, wherein

3           a winding pitch of the glass tube is changed to enlarge  
4       at such a position back from each end by 60 to 120° inclusive  
5       with respect to the axis, as viewed in the direction of the  
6       axis.

1           8 . The compact self-ballasted fluorescent lamp of Claim  
2       5, wherein

3           a gap between the other adjacent spiral parts is in a  
4       range of 1 to 3 mm inclusive, and

5           a distance between (a) a first point that is on each  
6       end and (b) a second point that faces the first point and  
7       that is on an outer surface of an adjacent spiral part in  
8       the direction of the axis, is in a range of 3 to 6 mm inclusive.

1           9 . The compact self-ballasted fluorescent lamp of Claim  
2       4, wherein

3           an annular outer diameter of the arc tube with the  
4       double-spiral construction is in a range of 30 to 40 mm  
5       inclusive.

1           10 . The compact self-ballasted fluorescent lamp of Claim  
2       3, wherein

3           the holding member is in a cylindrical shape and has

4 an end wall where the insertion openings are formed,  
5 the compact self-ballasted fluorescent lamp further  
6 comprises a case that is fit to cover a circumferential wall  
7 of the holding member, and  
8 the globe is fixed in a state where an opening end thereof  
9 is fit in a gap formed between the circumferential wall of  
10 the holding member and the case.